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(§371 of International Application PCT/JP03/16383)

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 3, 9-11 and 13 have been amended and claims 14-33 have been added as follows:

Listing of Claims:

Claim 1 (original): A curable liquid acryloyl group containing resin composition obtained by reacting

(a) at least one monofunctional vinyl compound, and

(b) at least one multifunctional acrylic ester, with

(c) at least one β -dicarbonyl group containing compound or resin, in which the β -dicarbonyl group has two activated hydrogen atoms in its methylene position,

wherein the equivalent ratio of the vinyl group of the monofunctional vinyl compound (a) to the activated hydrogen atom of the compound or resin (c) is in the range from 0.01:1 to 0.9:1 and

the equivalent ratio of all unsaturated groups from both monofunctional vinyl compound (a) and multifunctional acrylic ester (b) to the activated hydrogen atom of the compound or resin(c) is >1.05:1.

Claim 2 (original): The composition according to claim 1, characterized in that component (a) is selected from the group consisting of acrylic esters (acrylates), alkyl vinyl ketones, acroleine, acrylonitrile, acrylamide or vinylsulfonate.

Claim 3 (currently amended): The composition according to ~~claims 1 to 2~~ claim 1,

characterized in that component (c) is selected from the group consisting of acetoacetates, β -diketones or malonates.

Claim 4 (original): The composition of claim 1, characterized in that the monofunctional vinyl compound has at least one additional functional group having atoms other than carbon and hydrogen.

Claim 5 (original): The composition according to claim 4, characterized in that the monofunctional vinyl compound having at least one additional functional group is 2-hydroxyethyl acrylate, 2-hydroxypropyl acrylate, 2-hydroxybutyl acrylate, 3-hydroxybutyl acrylate, 4-hydroxybutyl acrylate, 6-hydroxyhexyl acrylate, N-alkoxymethyl acrylamide, N-acryloyl morpholine, glycidyl acrylate, 2-isocyanatoethyl acrylate, poly(ethylene glycol) monoacrylate, poly(propylene glycol)monoacrylate, perfluoroalkyl acrylate or poly(dimethylsiloxane) monoacrylate.

Claim 6 (original): A process for the preparation of the curable liquid acryloyl group containing resin composition as claimed in claim 1, comprising the step of reacting

- (a) at least one monofunctional vinyl compound, and
- (b) at least one multifunctional acrylic ester with
- (c) at least one β -dicarbonyl group containing compound or resin, in which the β -dicarbonyl group has two activated hydrogen atoms in its methylene position,

such that the equivalent ratio of the vinyl group of the monofunctional vinyl compound (a)

to the activated hydrogen atom of the compound or resin (c) is in the range from 0.01:1 to 0.9:1 and the equivalent ratio of all unsaturated groups from both the monofunctional vinyl compound (a) and the multifunctional acrylic ester (b) to the activated hydrogen atom of the compound or resin (c) is >1.05:1.

Claim 7 (original): A process for the preparation of the curable liquid acryloyl group containing resin composition as claimed in claim 1, comprising the steps of

(1) reacting

(a) at least one monofunctional vinyl compound, with

(c) at least one β -dicarbonyl group containing compound or resin, in which the β -dicarbonyl group has two activated hydrogen atoms in its methylene position,

to yield a mono-substituted β -dicarbonyl group containing compound or resin, in which the mono-substituted β -dicarbonyl group has only one activated hydrogen atom in its methylene position,

and

(2) reacting said mono-substituted β -dicarbonyl group containing compound or resin with

(b) multifunctional acrylic ester.

Claim 8 (original): The process according to claim 7, wherein the equivalent ratio of the vinyl group of the monofunctional vinyl compound (a) to the activated hydrogen atom of the compound or resin (c) is in the range from 0.01:1 to 0.9:1 in the step (1), and the equivalent ratio of

vinyl group of the multifunctional acrylic ester (b) to the activated hydrogen atom of the mono-substituted β -dicarbonyl group containing compound or resin is $>1.05:1$ in the step (2).

Claim 9 (currently amended): A process according to claim 6 [[or 7]], wherein the monofunctional vinyl compound (b) has at least one additional functional group other than vinyl group.

Claim 10 (currently amended): The process according to claim 6 [[or 7]], wherein the process is carried out in the presence of a catalyst which is selected from the group consisting of organic and inorganic basic compounds, having a $pK > 11$ or from the group consisting of ammonium halogenides or from the group consisting of tertiary organic phosphines.

Claim 11 (currently amended): A curing method, comprising the step of curing a curable liquid acryloyl group containing resin composition according to claim 1 [[to 5]] by ultraviolet light or electron beam or heat.

Claim 12 (original): The curing method according to claim 11, wherein the curing step is carried out in the absence of a photoinitiator.

Claim 13 (currently amended): A cured product obtained by the curing method according to claim [[11 or]] 12.

Claim 14 (new): A cured product obtained by the curing method according to claim 11.

Claim 15 (new): A curing method, comprising the step of curing a curable liquid acryloyl group containing resin composition according to claim 2 by ultraviolet light or electron beam or heat.

Claim 16 (new): The curing method according to claim 15, wherein the curing step is carried out in the absence of a photoinitiator.

Claim 17 (new): A cured product obtained by the curing method according to claim 16.

Claim 18 (new): A cured product obtained by the curing method according to claim 15.

Claim 19 (new): A curing method, comprising the step of curing a curable liquid acryloyl group containing resin composition according to claim 3 by ultraviolet light or electron beam or heat.

Claim 20 (new): The curing method according to claim 19, wherein the curing step is carried out in the absence of a photoinitiator.

Claim 21 (new): A cured product obtained by the curing method according to claim 20.

Claim 22 (new): A cured product obtained by the curing method according to claim 19.

Claim 23 (new): A curing method, comprising the step of curing a curable liquid acryloyl group containing resin composition according to claim 4 by ultraviolet light or electron beam or heat.

Claim 24 (new): The curing method according to claim 23, wherein the curing step is carried out in the absence of a photoinitiator.

Claim 25 (new): A cured product obtained by the curing method according to claim 24.

Claim 26 (new): A cured product obtained by the curing method according to claim 23.

Claim 27 (new): A curing method, comprising the step of curing a curable liquid acryloyl group containing resin composition according to claim 5 by ultraviolet light or electron beam or heat.

Claim 28 (new): The curing method according to claim 27, wherein the curing step is carried out in the absence of a photoinitiator.

Claim 29 (new): A cured product obtained by the curing method according to claim 28.

Claim 30 (new): A cured product obtained by the curing method according to claim 27.

Claim 31 (new): The composition according to claim 2, characterized in that component (c) is selected from the group consisting of acetoacetates, β -diketones or malonates.

Claim 32 (new): A process according to claim 7, wherein the monofunctional vinyl compound (b) has at least one additional functional group other than vinyl group.

Claim 33 (new): The process according to claim 7, wherein the process is carried out in the presence of a catalyst which is selected from the group consisting of organic and inorganic basic compounds, having a $pK > 11$ or from the group consisting of ammonium halogenides or from the group consisting of tertiary organic phosphines.